



Woodlands
Annual
Report

2000/2001
Timber Year



DAISHOWA-MARUBENI
INTERNATIONAL LTD.

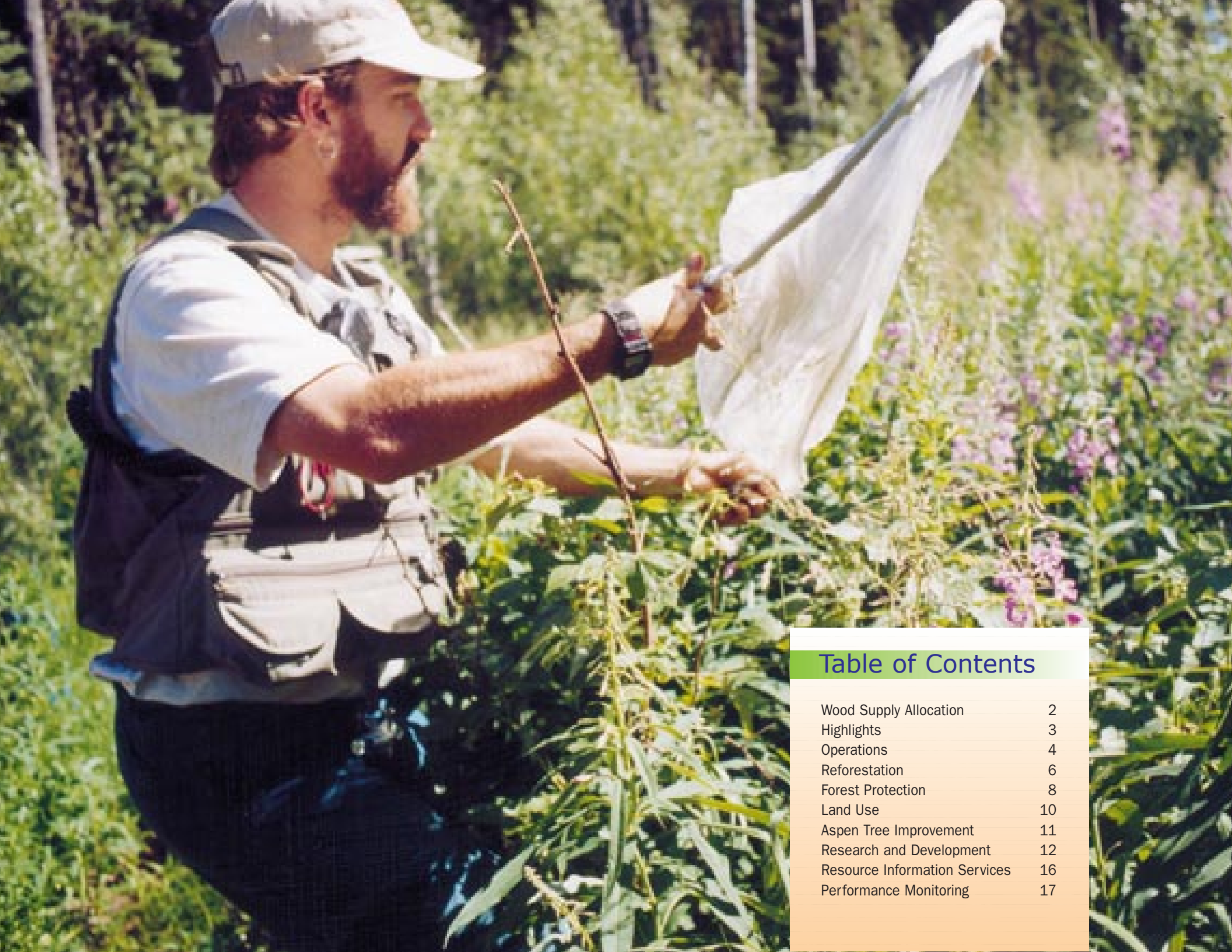


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Company Profile

Daishowa-Marubeni International Ltd. (DMI) is a forest products company established in Western Canada in 1969 by Daishowa Paper Manufacturing Co. Ltd. and Marubeni Corporation of Japan. DMI is a top pulp producer in North America.

Alberta Operations

DMI manages 2.9 million hectares of timberlands (42.6% is productive) through a forest management agreement with the Alberta Government to supply most of its fibre requirements for its pulp mill in Peace River. DMI holds the rights to the deciduous fibre (aspen and poplar trees, other companies hold the coniferous tenure) in the forest management area. The company also harvests timber from quotas in the region. Over 35 per cent of Peace River Pulp's annual volume of logs is harvested and delivered by First Nations contract companies.

The company manages these lands within the forest management agreement on a sustainable basis for commercial harvest, reforestation, wildlife habitat, fish habitat, ecological

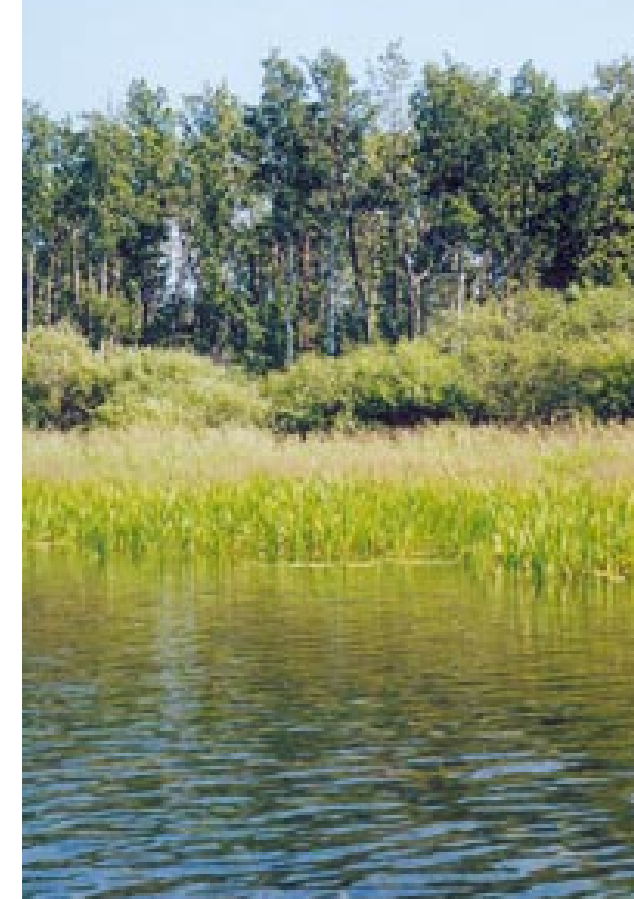
diversity, and other non-timber values. DMI complies with federal and provincial regulations and FORESTCARE Codes of Practice. DMI's Peace River Pulp Division is FORESTCARE certified. Alberta Environment regularly audits DMI's forest operations to ensure they are complying with provincial government regulations.

Situated 16 kilometres (km) north of the Town of Peace River and some 489 km northwest of Edmonton, in the province of Alberta, the Peace River mill employs 350 people and produces about 440,000 air-dried metric tonnes of kraft pulp. The pulp mill was the first of Alberta's new generation of pulp mills and pioneered the production of hardwood pulp in northwestern Alberta. It is designed to

minimize the impact on the environment and utilizes previously uneconomical hardwood timber and residual softwood chips purchased from sawmills in the area.

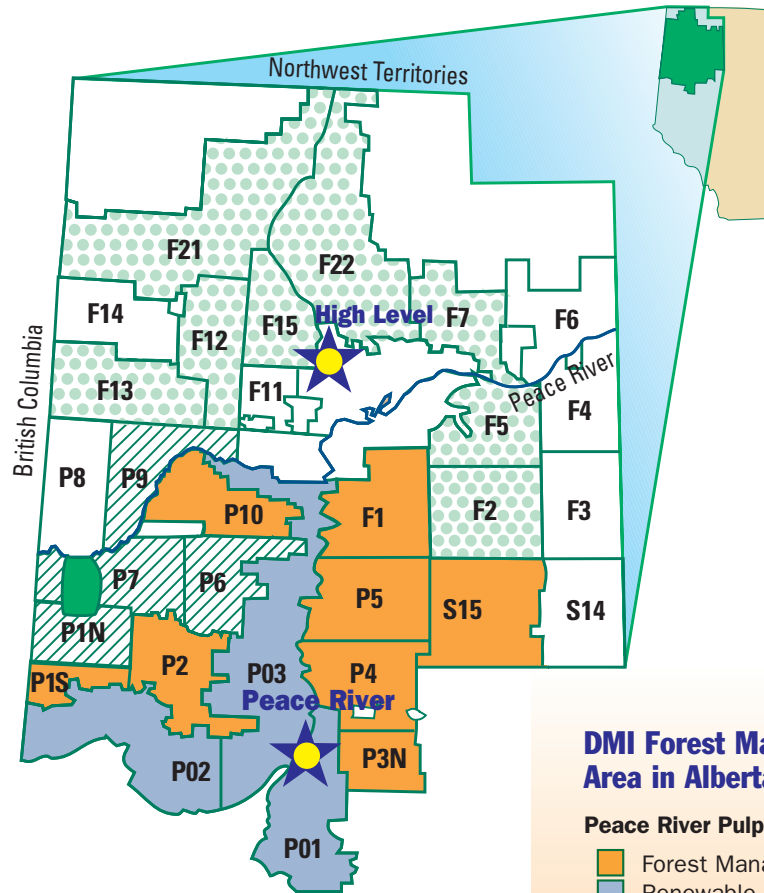
The pulp mill combines minimum staffing and supervision with the most advanced technology in an atmosphere dedicated to cost-effective production of high quality market pulp and the achievement of personal job satisfaction. Peace River Pulp is committed to providing a safe and healthy workplace.

Typically, one third of the total production is softwood pulp and two-thirds is hardwood pulp for sale to the world market. Hardwood pulp blended with or without softwood pulps makes an



excellent printing and writing grade of paper, providing bulk and a good printing surface. Peace River Pulp's market share is broken down as follows: 50 per cent to Japan, 25 per cent to North America, 15 per cent to other Asian countries and 10 per cent to Europe.

Wood Supply Allocation



DMI – Peace River Pulp Division

Disposition	Deciduous AAC	Coniferous AAC Cut m ³ /Year
Forest Management Agreement	938,764	DMI no longer holds coniferous AAC
Green Area DTA	363,000	
White Area DTA	125,000	
DTA within Tolko, High Level Forest Management Agreement	179,000	
TOTAL QUOTA	1,605,764	

DMI Forest Management Area in Alberta

Peace River Pulp Division (Deciduous)

- Forest Management Area
- Renewable Quota
- Renewable Quota
- Deciduous Timber Allocation (Incidental Aspen only)
- Chinchaga Wildland Park

Highlights

The year 2000 proved to be a memorable one for DMI on a number of different fronts. It saw the sale in October of the Brewster Lumber Division, which followed closely on the heels of the sale of the High Level Lumber Division in 1999.

These changes and the resulting consolidation of our activities in Peace River Pulp Division allowed us to make a number of improvements in our processes, and made it easier to ensure the highest level of efficiency. It also demanded the involvement, efforts and cooperation of all PRPD staff. As usual PRPD staff rose to the challenge, ensuring that the consolidation was completed effectively and efficiently. At the same time, we also managed to bring in all of our fibre requirements on budget and on schedule, for a total intake of over 2.0 million cubic metres of logs and wood chips. It's an accomplishment all staff should take pride in and one we hope to repeat for



many years to come.

This past year also marked a new era of cooperation between DMI and CANFOR, with both companies embarking upon a collaborative project that will integrate many of our business processes. The project, which will see continuing integration of our P1 and P2 pilot projects, defined many of our business processes, and looked for ways to align and coordinate many of our forestry activities. My congratulations to everyone involved in this exciting initiative and my thanks for all your hard work and dedication.

While there were many successes this past year, there were also many challenges. The increasing volatility of world

pulp and paper markets had a direct impact on our operations, forcing us to adjust inventory levels. To accommodate this adjustment, we changed our production requirements during the year, taking 10 days off hardwood production and adding additional softwood days. Naturally, this approach presents its own challenges, and we will need everyone's continued support in order to make these production changes both feasible and achievable.

The continuing downturn in the market has also necessitated an increased focus on cost reductions throughout our operations. Many departments have already found innovative ways to

increase their efficiencies while reducing their expenditures – often, in new and unconventional ways. As a result in our 2001/2002 Business Plan, we realigned the woodlands superintendent's responsibilities to focus on initiatives and projects to reduce costs. I would like to thank everyone in Woodlands and Forest Management for their dedication, hardwork and commitment.

A handwritten signature in blue ink that reads "Wayne Thorp".

Wayne Thorp
General Manager
Alberta Woodlands

Operations

Harvesting operations at DMI are carried out according to Timber Harvest Planning and Operating Ground Rules which are jointly developed by the Alberta Government and the forest industry.

These rules are usually revised every five years. These ground rules highlight important management principles, define operating and planning objectives, and contain standards and guidelines for timber harvest, road development, reclamation, reforestation, and integration of timber harvesting with other forest uses.

Before any site is selected for harvest, DMI's foresters and technologists gather detailed information about the area, including the age and types of trees, soil conditions, resident wildlife, location of waterways and access roads, and how reforestation can best occur on the site. Then, if the area is considered suitable for harvest, the best harvesting method is selected and again, carefully planned.

DMI uses a "multi-pass" harvest system. Under this system, a maximum of half of the mature timber in an operating area can be removed in the first pass. This ensures that mature tree stands of similar size, shape and composition are left untouched until new trees on the harvested site have regrown. Sometimes, the actual

harvested area is as little as 10% of the forest identified in the annual operating planning area of the company.

The location, size and shape of the cutblock are carefully chosen to minimize disruption to birds and other wildlife. Cut areas are often planned so that the edges are contoured making it easier for wildlife to browse on re-generated land,

and take cover when necessary in adjacent tree stands. All of DMI's woodlands operations do most of their harvesting in the winter months, when the ground is frozen. This makes it easier to construct access roads and operate equipment in the area with little permanent scarring or damage to the soil and waterways.



DMI – Peace River Pulp Division

A total of 139 blocks were harvested. The average size of these blocks was 22.5 hectares, the largest being 72.9 hectares and the smallest, 1.6 hectares. All of the company blocks harvested were patch clear-cut. In addition to dead snag trees, live residual trees (conifer and deciduous) were distributed in clumps throughout the blocks at a rate of 1 per 100 trees harvested, for wildlife habitat. Some of the residual trees were left in clumps of 10-25.

Four prime contractors completed the logging and hauling of Company dispositions. The logging contractors employed conventional logging equipment (feller-bunchers, grapple skidders and delimiters).

All the prime contractors have safety programs, which involve training of staff in the safe operation of equipment, first aid training in case of accidents and regularly scheduled meetings to discuss accident prevention and safety issues. Peace River Pulp has similar programs for

woodlands staff and conducts audits of the contractor programs on an ongoing basis by attending contractor safety meetings. Harvesting, road construction, log hauling and chip hauling contractors worked approximately 350,014 hours and reported 5 lost-time injuries.

The company contractors required five campsites. All of them were located on public land. Each site consisted of a sump for disposal of sewage and kitchen waste. Garbage was incinerated in forced air burners on site or removed to municipal landfills. Waste oil was collected, removed, and disposed of in an appropriate manner. All but one camp has been abandoned, with the sumps filled in and top soil spread back over the sites. The remaining camp is open and providing services for the EMEND Research project. On sites that had soil erosion potential, wood debris was spread over the site. Many of the sites were also seeded using a standard forest mix.

Peace River Pulp had 149 kilometres of class 2

permanent roads in place as of April 30, 2001. Ten kilometres of class 2 road were built in this reporting period. In addition, approximately 194.54 kilometres of class five temporary road was constructed.

Compliance

Peace River Pulp Division had four compliance issues identified. No penalty action was taken. These out of compliance issues resulted from the company self-reporting of internal audit findings.

At time of printing last year, a penalty recommendation was made against the company and representation to the government was being made. A penalty did result from this recommendation and was carried over from last year.

DMI stresses the importance of penalty-free operations and strives to continually improve their performance.



2000/2001 Sources of Hardwood Logs Delivered to DMI — Peace River Pulp Division

(Includes Manning Diversified Forest Products satellite yard)

Source May 1 – April 30 Timber Year	2000/2001 Timber Actual (cubic metres)
DMI-PRPD Operations	632,440
Incidental From Quota Holders	398,386
Industrial Salvage	48,279
Permit Programs	303,625
Private Land	191,712
Total	1,574,442

Reforestation

Reforestation is more than a way to ensure a steady timber supply for years to come – it's also the basis for DMI's commitment to responsible forestry.

Today, forestry companies have a better understanding of what constitutes a healthy forest and are focused as much on protecting the biodiversity of the forest as on replacing harvested timber.

DMI's reforestation practices begin before harvesting even occurs, with pre-harvest assessments. Before any harvesting activity begins, DMI foresters detail such factors as the age and type of trees, soil

conditions and vegetation, and use this information to create a reforestation plan. Once harvesting has occurred, the area is treated according to the plan within a two-year period. The forest is monitored and assessed at regular intervals for the next several years to ensure that everything is growing and regenerating as it should.

This commitment to reforestation and regeneration is both part of our contractual obligation with federal and provincial governments and the foundation of our commitment to responsible management. It is also the basis of an exciting

new partnership with Canadian Forest Products Ltd. (Canfor), Hines Creek Division that will see the activities and operations of our Woodlands Departments become aligned and integrated. While this new integration will not change DMI's use of pre-harvest assessments and post harvest monitoring, it will require both DMI and Canfor to collaborate on a variety of initiatives including the development of a monitoring protocol. "We need to know if new treatments are needed for the maintenance of our current cut volumes or if the current management regime is on track," explains



"One of the biggest things this past year is that we started on a project on woodlot management in the province's white zone. I've been working on the spatial

compilations to look at increasing the mill's availability to fibre. That's been the real highlight – helping to find new options and opportunities for the mill."

GIS Analyst Bob Willing

Carl Alexandruk, DMI woodlands reforestation supervisor.

By integrating the Woodlands Departments, both DMI and Canfor will be able to maintain access to a larger land base and access lands that would normally have to be skipped over. "It even allows us to share some logging contractors...it's really about economies of scale and integration in general."

It's also about being proactive, and setting standards for cooperation and integration long before it is required by legislation. "The government strongly encourages cooperation, so much so that if you're not working together, the government may order you to do so," explains Alexandruk. "In this instance we've done it on our own, and if you're ahead of the game, it's that much better."



Pre-harvest Assessments

At Peace River Pulp Division pre-harvest assessments were completed on a total of 36 cutblocks.

Site Preparation

Preparing a site includes scarification to prepare a seedbed for natural regeneration, seeding or planting. At Peace River Pulp Division a total of 397.3 hectares were prepared in dispositions: FMAP020012 and FMAP040011.

Planting

PRPD planted 618,681 white spruce seedlings in 2000 in dispositions: DTLP530006, DTLP910005, FMAP020001, FMAP020005, and FMAP040001.

Deciduous Establishment Surveys

At Peace River Pulp Division an establishment survey, measuring reforestation progress for deciduous cutblocks, needs to be completed between year three and five after harvest. Contractors conducted all establishment survey work as follows:

Establishment Survey Monitoring

	Year 2000
Total Blocks Surveyed	95
Sufficiently Regenerated	55
Conditionally Regenerated*	38
Not sufficiently Regenerated	2

* Failed to meet the required height or density

Reclamation

Provincial law also requires that all harvested sites are reforested or returned as closely as possible to their natural state when harvesting



operations are completed. All waste material generated during harvesting is either spread, collected or burned, and when regular access to the site for harvesting or reforestation is no longer required, roads are removed and often re-planted. Regular surveys of previously harvested sites are required by legislation to ensure reclamation meets all standards.

At campsites, creek crossings and road construction sites where erosion potential was identified, DMI took steps to stabilize the slope through measures like rolling back logging debris and seeding to grasses. All of the blocks harvested have been treated and the performance of the treatments will be monitored.

Burning

Piles containing logging slash (limbs and tops) and/or debris from road construction are burned in the winter. This reduces the potential fire hazard while maintaining the productive forest area. At Peace River Pulp piles were burned in 232 blocks and scanned for holdover fires along with piles located between Km 85 and Km 122 on the DMI P6-100 road. A total of 129 blocks were piled in 2000/2001 for burning in the winter of 2001/2002. In addition, limited amounts of logging debris were retained in the form of small brush piles for small mammal habitat. The distribution of these piles was developed with input from Alberta Environment, Natural Resources staff.



Forest Protection

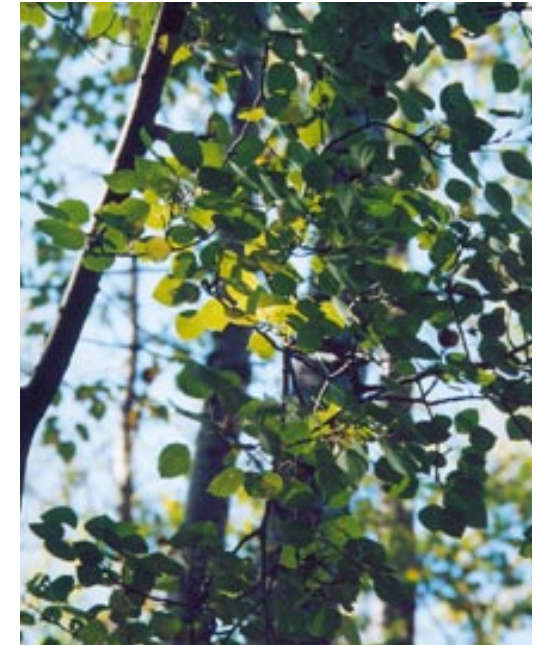
Despite what public perception may be, the greatest challenge in protecting valuable forestlands isn't just preventing fire – it's identifying and addressing the damage done by insects and disease.

Here in Alberta in 1999 alone, 774,788 hectares were defoliated by insects compared to 122,626 hectares that were burned and 61,222 hectares that were harvested. Obviously insects and disease are a big issue, and one that DMI is actively involved in assessing and monitoring. "It's important for us to get a better picture of how insects and disease impact growth and to understand how it changes from year to year," notes Carl Alexandruk. "That's why we're committed to reporting and observing the activity in the area."

In 2000 the Land and Forest Service conducted the overall monitoring program, while forest companies such

as DMI provided assistance. As part of these efforts, aerial reconnaissance surveys were conducted to investigate the extent and severity of the damage caused by insect and disease. Aerial surveys of the northwest boreal region between July 4th and 14th, 2000 revealed that 2.5 million hectares had defoliated deciduous stands. Of that area, 4,640 hectares were identified as having been defoliated by spruce budworm, 349,227 largely by forest tent caterpillar and 2,186,406 by large aspen tortrix. While spruce budworm infestations declined from the previous year, the defoliation by large aspen tortrix was three times greater than what was recorded for 1999. Large aspen tortrix infestations often follow forest tent caterpillar outbreaks, which were noticeably higher in 1999. "It's a very cyclical thing, but very tied together," says Alexandruk.

In addition to aerial surveys, ground surveys and pheromone traps are also used. "We want to be proactive in knowing what's happening," explains Alexandruk "we're still learning about the various levels of damage and we want to identify exactly what the impact is before embarking on a control approach." Determining the right control approach will be done in consultation with the Forest Service and industry partners, who are working together to take the information gathered through these assessment activities and use it to develop long-term approaches for detecting, preventing and controlling outbreaks before serious damage occurs.



"My highlight for the past year was the considerable progress we made on our move towards strategic integration with Canfor. Everyone involved has worked hard and as a result, business processes have been identified and a plan is in place to implement them."

Timber Analyst Tim Barker

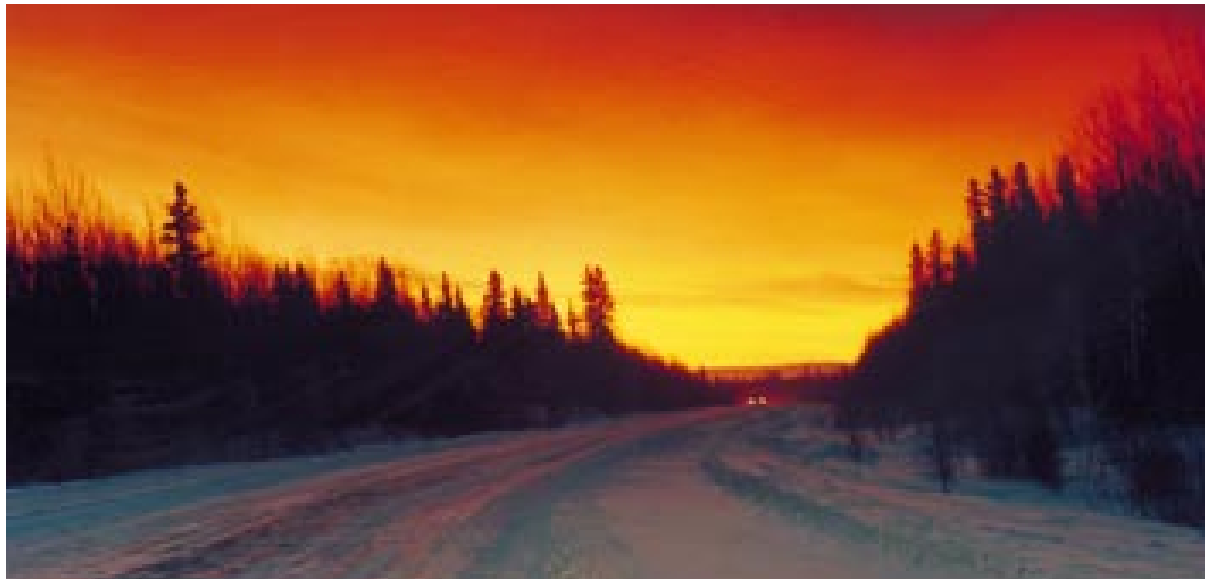
Fire

After an unusually busy season the previous year, the 2000 forest fire season proved dramatically slower. Wet conditions throughout much of the summer months meant that the fire hazard remained minimal throughout our area. In fact, other than a deep understory fire discovered by infrared sensing in the spring – the residual result of winter debris burning – DMI wasn't required to loan out any personnel for fire fighting during the entire season.

“It was a remarkably quiet season,” says Greg Cunliffe, woodlands supervisor with DMI. “There was only one other fire in our area, the result of an early spring lightning strike, but the Forest Service was able to handle it on their own.”

Despite the quiet season, DMI was still actively involved in the Partners in Prevention program, which brings others in the forestry industry together with the Alberta Forest Service to create a series of prevention and

education articles that are put into local papers. The partners also look for other ways to reach the public with their prevention message, including putting safety messages on the side of the chip trucks that travel throughout the region. These proactive safety and prevention messages are designed to alert the public to the things they can do to protect themselves and the forest – messages that are still relevant even in the rainiest season.



“The past season’s opportunity to coordinate a harvest and haul operation within an area of difficult terrain and sensitive

watershed was quite rewarding. Both the logging and hauling contractors demonstrated a lot of creativity, innovation and enthusiasm in tackling this project. Thanks to their collaboration, the project was completed with positive environmental precautions, minimal safety incidents and in good time.”

Woodlands Supervisor Jim Witiw

Summary of Fire Losses (ha) Peace River Pulp Division

Year	Number	FMA		Total
		Productive	Unproductive	
1995	37	4741	4136	8877
1996	9	1	2	3
1997	15	0	17	17
1998	126	438	690	1128
1999	70	641	16	657
2000	35	601	95	696
TOTAL	292	6422	4956	11,378

Year	Number	Quota		Total
		Productive	Unproductive	
1995	7	3	0	3
1996	3		0	
1997	4	0	3	3
1998	10	11	7	18
1999	27	11	7	18
2000	14	630	360	990
TOTAL	65	655	377	1032



Land Use

Despite increased gas prices, and the corresponding demand for oil and gas exploration, PRPD’s land use requests remained on par with those of the previous year. In total, DMI received 1012 requests to use DMI managed lands in 2000 compared to 1126 requests the previous year.

“As a general rule, increased gas prices will lead to increased pipeline building and exploration,” explains Tom Lee, DMI’s land use coordinator. “I’m actually surprised we didn’t get more.”

Lee attributes the unexpected stability in demand to the fact that more companies are purchasing

existing exploration sites, instead of exploring on new land. “And of course,” notes Lee, “they don’t need to make new requests in that situation.”

One area of activity that did see an increase in requests was in the area of road use. During the year 2000, requests to use DMI roads rose by about 35%. In 2000 DMI received 172 road use requests, up from 135 in 1999. Lee notes that virtually all of those requests were from the petroleum industry.

The manageable number of requests for use and access allowed land use staff to concentrate on a variety of other projects and initiatives, including the successful development and

implementation of a new Land Use and Accounts Receivable System. Lee says that this new system allows for more accurate government and internal reporting and makes it easier to be accountable for audit purposes.

Staff also devoted time to cleaning up the database, invoicing on backlogged files and moving inactive files off the system. These new systems, together with the streamlined files, will make it easier for land use staff to manage and plan operations for coming years.



Number of Requests to Use DMI Forest Land

Year	Peace River Pulp
1994	706
1995	784
1996	1002
1997	1448
1998	1304
1999	1126
2000	1012

Aspen Tree Improvement

The year 2000 marked an important milestone for DMI's Aspen Tree Improvement Program.

After six years of planning and development, the program witnessed its most important achievement to date – the successful cross breeding of local aspen (*Populus Tremuloides*) and European aspen (*Populus Tremula*) and the subsequent growth of the stock in two different nurseries. The next step will see the seedlings planted in controlled progeny trials and monitored regularly to compare the field performance of the various crosses with that of native or control seedlings.

The Aspen Tree Improvement Program was established with the intent of identifying, developing and securing a gene bank of aspen trees that grow fast, have good fibre quality and are resilient to insect and disease. It was initiated by

DMI and other partnering forest companies as a way to create aspen clones that are suited to short rotation fibre production in intensively managed plantations or private land.

This past year's success in the nursery was particularly gratifying for Florance Niemi, the leader of the Aspen Tree Improvement Program and a silviculture forester with DMI. "Tree improvement is a continual ongoing process of selecting, breeding and testing, so it was critical to the program to learn the technique of performing successful crosses." When mature enough to flower, superior progeny from the first generation crosses will be used for breeding to further improve the desired characteristics in the second generation. Top performing trees will also be bulked up vegetatively and tested in clonal trials to determine their suitability for use in

operational plantations.

While some people may shy away from the term "cloning" Niemi is quick to point out that cloning is a natural process. "That's the way mother nature does it...look at the ground after a forest fire. The aspen shoots you'll see coming up are clones of the aspen trees that were there before." She emphasizes that the technique used in the Aspen Tree Improvement Program is simply a breeding process and has nothing to do with genetic engineering. "We're not manipulating anything here, just using traditional cross breeding techniques to develop fast-growing, hardier aspen trees using the natural variation within the species."

In addition to the early success of the aspen crossbreeding trials, Niemi has also been pleased with the attention the program has received from area farmers interested in planting trees.



"In the Aspen Tree Improvement Program, one of the biggest highlights was the success we had with our hybrid crosses... we've been working towards it for awhile and it will be an ongoing process, but 2000 was the real start of successful breeding."

Silviculture Forester Florance Niemi

She notes that she has already received numerous inquiries, and welcomes the opportunity to discuss the program as well as plant some of the excess seedling stock in volunteer fields. "The nice thing about planting some of the stock in fields other than our own is that it provides an indication of how the seedlings will perform on a variety of sites and with different levels of site preparation and vegetation control."



Research and Development

In the past, the line between business and research interests was quite clearly defined. Industry was responsible for ensuring a healthy profit margin while academia and government agencies oversaw research activities.

Today, business interests and research projects are the shared domain of industry, academia and government, with each committed to the

investigation, monitoring and assessment of a wide variety of research initiatives.

At DMI research and development is an ongoing priority, with substantial time and resources devoted to a number of new and ongoing research projects each year. “It has always been and continues to be an important part of our commitment to adaptive forestry management,” explains Carl

Alexandruk, PRPD’s reforestation supervisor.

DMI has forged a number of research partnerships with other forestry companies, university research teams and government, and can be actively involved with anywhere from 15 to 30 different projects at one time. Often these projects require ongoing collaboration with partners, who count on DMI for their expertise and resource

support and who in turn provide specialized research skills and experience.

One of the projects currently in progress is examining the impact of mechanical site preparation in stimulating aspen suckering. The project, organized in conjunction with AlPac, Slave Lake Pulp, Weyerhaeuser Canada, Louisiana Pacific, Millar Western, and Ainsworth Lumber, went to ten sites



“The most memorable thing about this past year for me was moving into the chip procurement position. It is a very interesting and challenging role in the

Woodlands Department and uniquely different from any of the previous positions that I have held.”

Chip Procurement Supervisor Larry Kaytor

located south of Slave Lake, and implemented four treatments in a new cutblock. The treatment types included disc-trenching, scraping off some of the duff layer with a cat blade, heavy shark-finned barrels and a control site with no preparation. The goal is to assess what level of preparatory disturbance would generate the greatest number of suckers.

Ecosystem Management by Emulating Natural Disturbance (EMEND) is one of DMI's most far reaching and broadly encompassing research experiments. With a projected 100-year time frame, EMEND is looking at the long term impact of approximating natural disturbances such as fire, flooding, insect and disease attack. Initiated in 1997, EMEND has drawn together more than 18 different partners who are working to monitor

regeneration, productivity and biodiversity under all treatments, tracking levels of nutrient recycling, plant and animal re-establishment and diversity. The premise is that by applying harvesting techniques that approximate natural disturbances, forests, plants and wildlife will redevelop in a similar fashion as they would after natural disturbances.

As with all research endeavors, these projects play an important role in our adaptive forest management philosophy, and are a crucial part of both immediate and long-term management. "It's vitally important for us to be able to adapt to change," notes Carl Alexandruk, " and research gives us the knowledge base we need to adjust our management practices and ensure the long term sustainability of our forests and our industry."



"Last year was my first year as a permanent employee with DMI. The work I did with the purchase wood program posed many new challenges and offered many opportunities to learn. I'm really looking forward to the coming year and to applying what I've learned."

Woodlands Supervisor Chad Tosh



DMI Research Summary

Project Name	Research Organization	Researcher	2000 Contribution	
			Cash	Inkind
A review of ungulate damage and damage reduction techniques	Western Boreal Aspen Corporation	Dr. Pontus Lindgren Dr. Douglas Ransome	1,961	11,574
Plantation density - literature review and trial design	Western Boreal Aspen Corporation	Cees van Oosten Lisa Zabek	1,000	4,915
Fertilizer experiment testing the effects of lime, nitrogen and phosphorus, applied at planting and after one year, on growth of aspen seedlings	Western Boreal Aspen Corporation	Dr. Robert van den Driessche	1,000	18,982
Stock type, physiological condition and time of out-planting trial	Western Boreal Aspen Corporation	Dr. Robert van den Driessche	1,000	2,500
Early selection for enhanced carbon dioxide biofixation and growth in fast growing poplar plantations	University of Alberta	Dr. Barbara Thomas Dr. Ellen MacDonald	3,360	1,500
Research into the use and risk of hybrid poplars, aspens and exotic Populus species	University of Alberta	Dr. Barbara Thomas Dr. Damase Khasa Dr. Bruce Dancik	11,375	0
Woodlot herbicide research trials	Woodlot Herbicide Coalition	Milo Mihajlovich	1,162	1,000
Western Boreal Growth and Yield Association Mixed Wood Study	Western Boreal Growth and Yield Association	Dr. Steve Titus Dr. Zhiming Wang	10,000	20,000
Blackout versus soft pinch to control seedling height in the nursery	Woodmere Nursery and DMI	Dr. Timothy Conlin, Kendel Thomas	0	1,500
Aspen establishment density and post planting decapitation trial (artificial and natural regeneration)	Woodmere Nursery and DMI	Dr. Chris Hawkins	0	2,000
Management of aspen logging debris	Alberta Research Council	Dr. Ken Greenway	5,000	0
Sucker Regeneration of Aspen	University of Alberta	Dr. Simon Landhausser	9,030*	0

Project Name	Research Organization	Researcher	2000 Contribution	
			Cash	Inkind
Biodiversity of Phytoplankton	University of Alberta	Theo Charette	5,500*	0
Disturbance Regimes and Ecosystem Dynamics in Boreal Forest Watersheds	Alberta Research Council	Jack Nolan	97,000*	0
Harvesting Option to Favour Immature White Spruce and Aspen Regeneration in Boreal Mixedwoods	J.D. Wilson & Associates and Canadian Forest Service		18,000*	0
Sustainable Forest Management Network of Centers of Excellence	Sustainable Forest Management Network of Centers of Excellence	Over 100 Researchers from Canadian Universities	100,000*	0
Ecological Management by Emulating Natural Disturbance	University of Alberta	University of Alberta, University of Calgary, Canadian Forest Service Forest Engineering Research Institute of Canada Alberta Research Council	272,600*	5000
Forest Engineering Research Institute of Canada (FERIC)	FERIC	FERIC	20,950*	71,250
Impact of Skidding on Soil and Aspen Regeneration Along a Catena	Dr. Ken Greenway	Alberta Research Council	12,000*	0
Evaluating the Impact of Shoot Blight on Aspen	Dr. Peter Blenis	University of Alberta	21,000*	0
TOTAL RESEARCH CONTRIBUTION			663,188	68,971

* Contributions from DMI funds in their Forest Resource Improvement Association of Alberta account



Resource Information Services

While the rest of the world may simply be interested in accurate, up-to-the-minute information, the realities of DMI's forestry operations demand it. Resource Information Services (RIS) is on the front line of collecting, tracking and retrieving all information relating to PRPD's operations. Not surprisingly, 2000 was another extremely busy year for everyone in the department.

On the technology side, RIS was kept busy on a number of fronts. A major amendment to land use applications necessitated a redesign of the data bases to capture more

data and allow for more timely and accurate reporting. The increasing use of palm technology by research foresters required RIS to develop an application that would allow for information on sampling plots and tree measurements to be transferred directly into data bases. At the same time, RIS also introduced a new map objects viewing and plotting tool for spatial land use data.

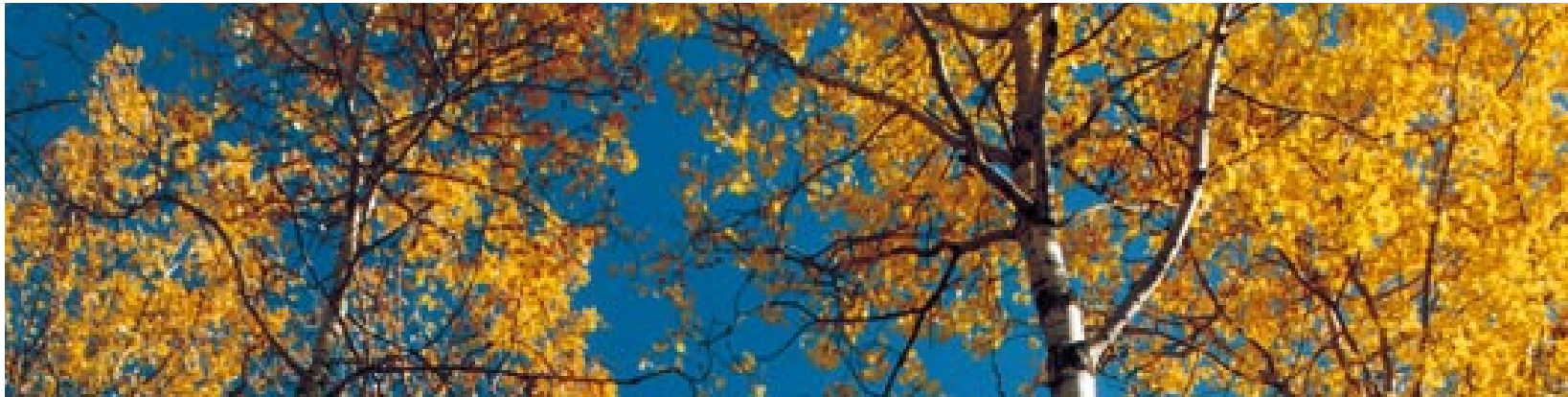
Perhaps one of the most interesting programs RIS is currently exploring is a new technology that allows them to capture previous year's harvesting information using a special program that creates a

3-D image of the data. "It's almost like flying a plane," explains Joanne Smirl, RIS superintendent. "You wear these glasses that are plugged into the computer and do your interpretation and delineation on the monitor."

Smirl notes that during 2000, RIS also finished the vegetation inventory for forest management unit F1 and collected broad scale inventory in the white zone, a joint project with the Alberta Forest Service. "We also reinitiated work on the Alberta vegetation model for conversion into the Oracle data base and converted all the spatial data from NAD 27 to NAD 83." The

latter task, which converted the data into a more current resolution that more accurately represents where objects are on earth, was a "particularly big job," says Smirl.

RIS is also responsible for the ongoing management of hardware and software systems in the Peace River Corporate Office, including purchasing and licensing for all three of the different operating systems currently used by staff. "It's important to stay current and to know what's available to make users happy and help them get the most from the technology."



Performance Monitoring

Following a rush of audits and activities in 1999, the year 2000 proved somewhat calmer in the area of performance monitoring. In fact, although DMI's ongoing internal performance monitoring continued as part of our day-to-day operations, there were no external audits conducted during the year at all.

"It was really a year of maintenance," explains Kevin Ledieu, woodlands superintendent, "but even though we had no external auditors on-site we still managed according to the same protocols, with the same sets of internal checks and balances." This includes annual internal audits of the information management systems, monitoring of all roads and creek crossings, camp inspection reports, truck audits and contractor safety audits. "And of course, we're always preparing for the next audit, even if it's months or years down the road." In PRPD's case, the next set of

external FORESTCARE and Forest Service audits is scheduled for 2002.

While most companies welcome the chance to allow outside auditors to evaluate and assess standards, many in the industry have noted that there are discrepancies in the criteria used by different audit programs. To address this issue, DMI and other forestry companies have begun laying the groundwork for a standardized third party audit process that would incorporate all of the pertinent criteria currently in use and create one audit program. All of the companies involved, including DMI are working to rework and rewrite the codes. "It's really an industry-wide effort," notes Ledieu, "with the ultimate goal of moving toward one audit that meets the needs of all parties."

Although this revamped external audit program is not yet complete, Ledieu is confident that it will continue to encourage industry to



improve its own standards and to motivate companies to set higher expectations of both their operations and their people. "It's all about accountability and responsibility," he explains, "and about continuing to set the bar a little higher."



"My highlight for the past year was really the success of the overall harvest operation and getting the wood to the yard. We had very few safety incidents, everything went

as it should and the wood flowed as expected and on schedule."

Woodlands Superintendent Kevin Ledieu



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Contact Information

DMI welcomes questions and comments from the public regarding all of its operations. Each year, the company organizes public meetings to present its Forest Management Plans, General Development Plans and Annual Operating Plans and to invite questions and suggestions. In addition, DMI has a Public Advisory Committee in Peace River. The Public Advisory Committee is a non-profit society that sets their own agenda for discussion. The Public Advisory Committee exists to represent the general public in northern Alberta with any questions or concerns they may have regarding DMI and its operations.

For more information on DMI's forest management and woodlands operations please contact:

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